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# **WATER SUPPLY OUTLOOK FOR COLORADO AND NEW MEXICO**

Prepared by

**U. S. DEPARTMENT of AGRICULTURE ★ SOIL CONSERVATION SERVICE**

Collaborating with

**COLORADO AGRICULTURAL EXPERIMENT STATION**

**STATE ENGINEER of COLORADO**

**and STATE ENGINEER of NEW MEXICO**

Data included in this report were obtained by the agencies named above in cooperation with the Bureau of Reclamation, U.S. Forest Service, National Park Service, Corps of Engineers and other Federal, State and private organizations.

AS OF  
**MAY 1, 1971**

## TO RECIPIENTS OF WATER SUPPLY OUTLOOK REPORTS:

Most of the usable water in western states originates as mountain snowfall. This snowfall accumulates during the winter and spring, several months before the snow melts and appears as streamflow. Since the runoff from precipitation as snow is delayed, estimates of snowmelt runoff can be made well in advance of its occurrence. Streamflow forecasts published in this report are based principally on measurement of the water equivalent of the mountain snowpack.

Forecasts become more accurate as more of the data affecting runoff are measured. All forecasts assume that climatic factors during the remainder of the snow accumulation and melt season will interact with a resultant average effect on runoff. Early season forecasts are therefore subject to a greater change than those made on later dates.

The snow course measurement is obtained by sampling snow depth and water equivalent at surveyed and marked locations in mountain areas. A total of about ten samples are taken at each location. The average of these are reported as snow depth and water equivalent. These measurements are repeated in the same location near the same dates each year.

Snow surveys are made monthly or semi-monthly from January 1 through June 1 in most states. There are about 1900 snow courses in Western United States and in the Columbia Basin in British Columbia. Networks of automatic snow water equivalent and related data sensing devices, along with radio telemetry are expanding and will provide a continuous record of snow water and other parameters of key locations.

Detailed data on snow course and soil moisture measurements are presented in state and local reports. Other data on reservoir storage, summaries of precipitation, current streamflow, and soil moisture conditions at valley elevations are also included. The report for Western United States presents a broad picture of water supply outlook conditions, including selected streamflow forecasts, summary of snow accumulation to date, and storage in larger reservoirs.

Snow survey and soil moisture data for the period of record are published by the Soil Conservation Service by states about every five years. Data for the current year is summarized in a West-wide basic data summary and published about October 1 of each year.

### PUBLISHED BY SOIL CONSERVATION SERVICE

The Soil Conservation Service publishes reports following the principal snow survey dates from January 1 through June 1 in cooperation with state water administrators, agricultural experiment stations and others. Copies of the reports for Western United States and all state reports may be obtained from Soil Conservation Service, Western Regional Technical Service Center, Room 209, 701 N. W. Glisan, Portland, Oregon 97209.

Copies of state and local reports may also be obtained from state offices of the Soil Conservation Service in the following states:

STATE	ADDRESS
Alaska	P. O. Box "F", Palmer, Alaska 99645
Arizona	6029 Federal Building, Phoenix, Arizona 85025
Colorado (N. Mex.)	12417 Federal Building, Denver, Colorado 80202
Idaho	Room 345, 304 N. 8th. St., Boise, Idaho 83702
Montana	P. O. Box 970, Bozeman, Montana 59715
Nevada	P. O. Box 4850, Reno Nevada 89505
Oregon	1218 S. W. Washington St., Portland, Oregon 97205
Utah	4012 Federal Bldg., 125 South State St., Salt Lake City, Utah 84111
Washington	360 U.S. Court House, Spokane, Washington 99201
Wyoming	P. O. Box 2440, Casper, Wyoming 82601

### PUBLISHED BY OTHER AGENCIES

Water Supply Outlook reports prepared by other agencies include a report for California by the Water Supply Forecast and Snow Surveys Unit, California Department of Water Resources, P. O. Box 388, Sacramento, California 95802 --- and for British Columbia by the Department of Lands, Forests and Water Resources, Water Resources Service, Parliament Building, Victoria, British Columbia





# **WATER SUPPLY OUTLOOK FOR COLORADO AND NEW MEXICO**

and  
FEDERAL - STATE - PRIVATE COOPERATIVE SNOW SURVEYS

*Issued by*

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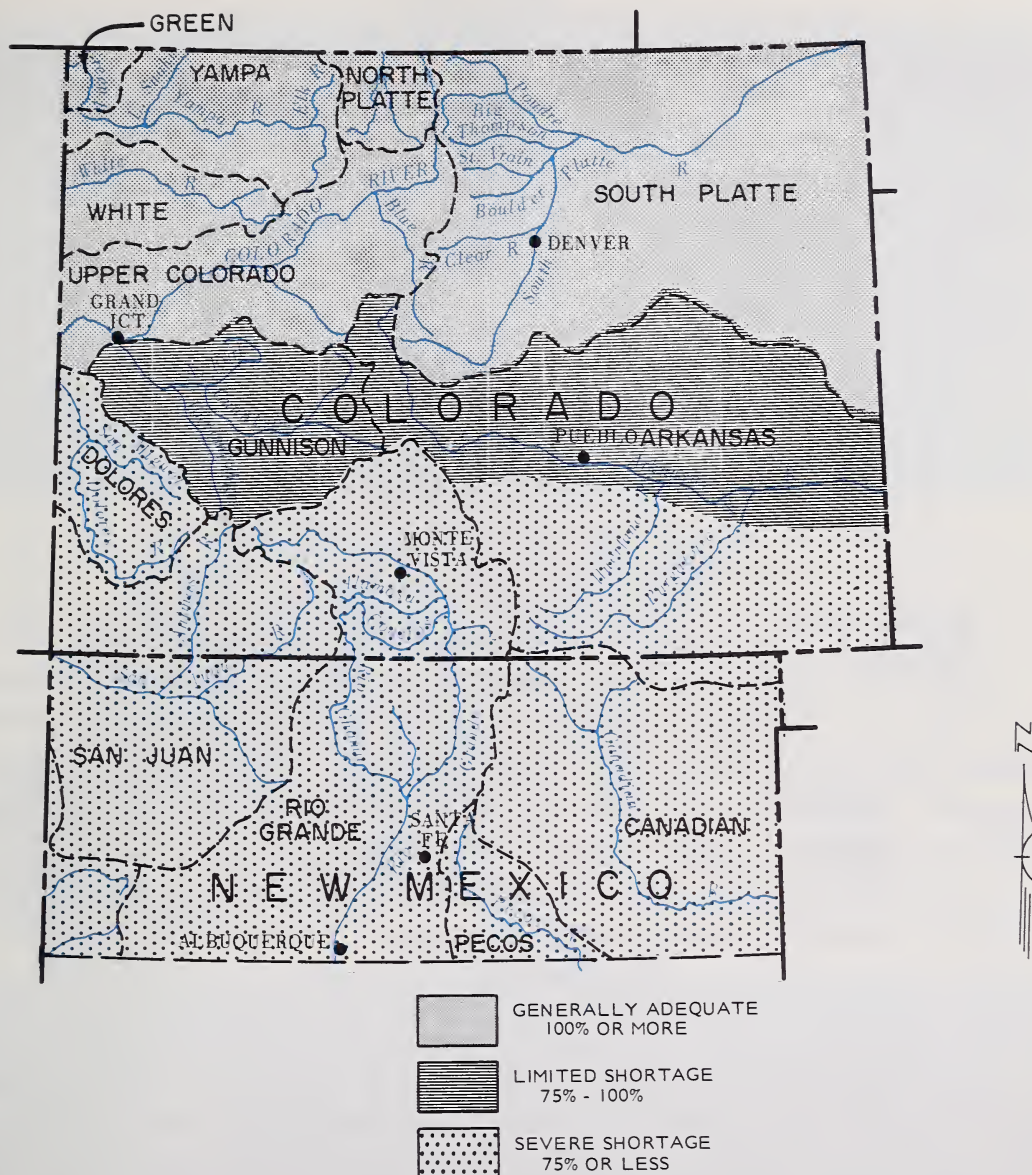
## WATER SUPPLY OUTLOOK BY MAJOR WATERSHED AREAS

WATERSHED I	- SOUTH PLATTE RIVER WATERSHED
	Describes water supply conditions in Fort Collins, Big Thompson, Longmont, Boulder Valley, Jefferson, Teller-Park, Douglas County, Morgan, Kiowa, West Arapahoe, West Adams, East Adams, Platte Valley, Southeast Weld, and West Greeley Soil Conservation Districts.
WATERSHED II	- ARKANSAS RIVER WATERSHED
	Describes water supply conditions in Lake County, Upper Arkansas, Fremont, Custer County Divide, Fountain Valley, Black Squirrel, Horse-Rush Creek, Central Colorado, Turkey Creek, Pueblo, Bessemer, Olney Boone, Cheyenne, Upper Huerfano, Stonewall, Spanish Peaks, Purgatoire, Branson Trinchera, Western Baca County, Southeastern Baca County, Two Buttes, Bent, Timpas, Northeast Prowers, Prowers, West Otero, East Otero, and Big Sandy Soil Conservation Districts.
WATERSHED III	- RIO GRANDE WATERSHED (COLORADO)
	Describes water supply conditions in Rio Grande, Center, Mosca Hooper, Mt. Blanca, Sanches, and Culebra Soil Conservation Districts.
WATERSHED IV	- RIO GRANDE WATERSHED (NEW MEXICO)
	Describes water supply conditions in Upper Chama, East Rio Arriba, Taos, Lindrith, Jemez, Santa Fe - Pojoaque, Sandoval, Tijeras, Cuba, and Edgewood Soil Conservation Districts.
WATERSHED V	- DOLORES, SAN JUAN, AND ANIMAS RIVERS WATERSHED
	Describes water supply conditions in San Miguel Basin. Dove Creek, Dolores, Mancos, LaPlata, Pine River, San Juan, and Glade Park Soil Conservation Districts.
WATERSHED VI	- GUNNISON RIVER WATERSHED
	Describes water supply conditions in Delta, Gunnison, Cimarron, Shavano, and Uncompahgre Soil Conservation Districts.
WATERSHED VII	- COLORADO RIVER WATERSHED
	Describes water supply conditions in DeBeque, Lower Grand Valley, Bookcliff, Eagle County, Middle Park, Glade Park, Upper Grand Valley, Plateau Valley, South Side, and Mt. Sopris Soil Conservation Districts.
WATERSHED VIII	- YAMPA, WHITE AND NORTH PLATTE RIVERS WATERSHED
	Describes water supply conditions in Yampa, Moffat, West Routt, East Routt, North Park, Upper White River, Lower White River, and Douglas Creek Soil Conservation Districts.
WATERSHED IX	- LOWER SOUTH PLATTE RIVER WATERSHED
	Describes water supply conditions in Sedgwick, South Platte, Haxton, Peetz, Padroni, Morgan, Rock Creek, and Yuma Soil Conservation Districts.
APPENDIX I	- SNOW SURVEY MEASUREMENTS
APPENDIX II	- SOIL MOISTURE MEASUREMENTS

# WATER SUPPLY OUTLOOK

as of

May 1, 1971



The map on this page indicates the most probable water supply as of the date of this report. Estimates assume average conditions of snow fall, precipitation and other factors from this date to the end of the forecast period. As the season progresses accuracy of estimates improve. In addition to expected streamflow, reservoir storage, soil moisture in irrigated areas, and other factors are considered in estimating water supply. Estimates apply to irrigated areas along the main streams and may not indicate conditions on small tributaries.

## WATER SUPPLY CONDITIONS

as of

May 1, 1971

THE SNOW PACK IN COLORADO AND NEW MEXICO RANGE FROM MUCH ABOVE NORMAL IN NORTHERN COLORADO TO A MINIMUM OF RECORD IN SOUTHERN COLORADO AND NORTHERN NEW MEXICO. OTHER CONDITIONS TEND TO FOLLOW THE SAME PATTERN. GOOD SOIL MOISTURE IN THE NORTH AND POOR IN THE SOUTH. RESERVOIR STORAGE IS ALSO EXCELLENT IN THE NORTH AND POOR IN THE SOUTH.

SEVERE SHORTAGES WILL EXIST IN NEW MEXICO AND SOUTHERN COLORADO UNLESS SUMMER RAINFALL IS PLENTIFUL.



COLORADO --

COLORADO HAS EXTREME VARIATION IN ITS SNOW PACK THIS YEAR. SOME NEAR RECORD SNOW PACK WAS MEASURED IN THE EXTREME NORTHERN SECTION OF THE STATE. AT THE SAME TIME, MINIMUM OF RECORD SNOW PACK WAS MEASURED IN THE SOUTHERN PORTION OF THE STATE. STREAM-FLOW WILL CORRESPOND TO THE SNOW PACK. SOIL MOISTURE IS EXCELLENT IN THE AREAS NORTH OF DENVER AND AVERAGE TO POOR SOUTH OF DENVER.

RESERVOIR STORAGE IS GOOD OVER MOST OF THE STATE. MOST OF THE STATE'S NUMEROUS RESERVOIRS WILL FILL DURING THE SEASON.



NEW MEXICO --

DROUGHT CONDITIONS WILL EXIST IN NEW MEXICO, UNLESS SUMMER RAINFALL IS MUCH ABOVE NORMAL. SNOW MELT STREAMS ARE EXPECTED TO FLOW NEAR A MINIMUM OF RECORD. SOME AREAS HAVE LESS SNOW THAN RECORDED IN THE LAST 36 YEARS. ONLY HIGHEST ELEVATIONS HAVE ANY SNOW IN NEW MEXICO AND VERY LITTLE REMAINS IN COLORADO. CONSERVATION WILL BE THE KEY WORD IF ANY CROPS ARE PRODUCED THIS YEAR. SOIL MOISTURE CONDITIONS ARE LISTED AS POOR AND CARRY-OVER STORAGE IS BELOW NORMAL. INFLOW TO NAVAJO RESERVOIR MAY BE ONE OF THE LOWEST ON RECORD.

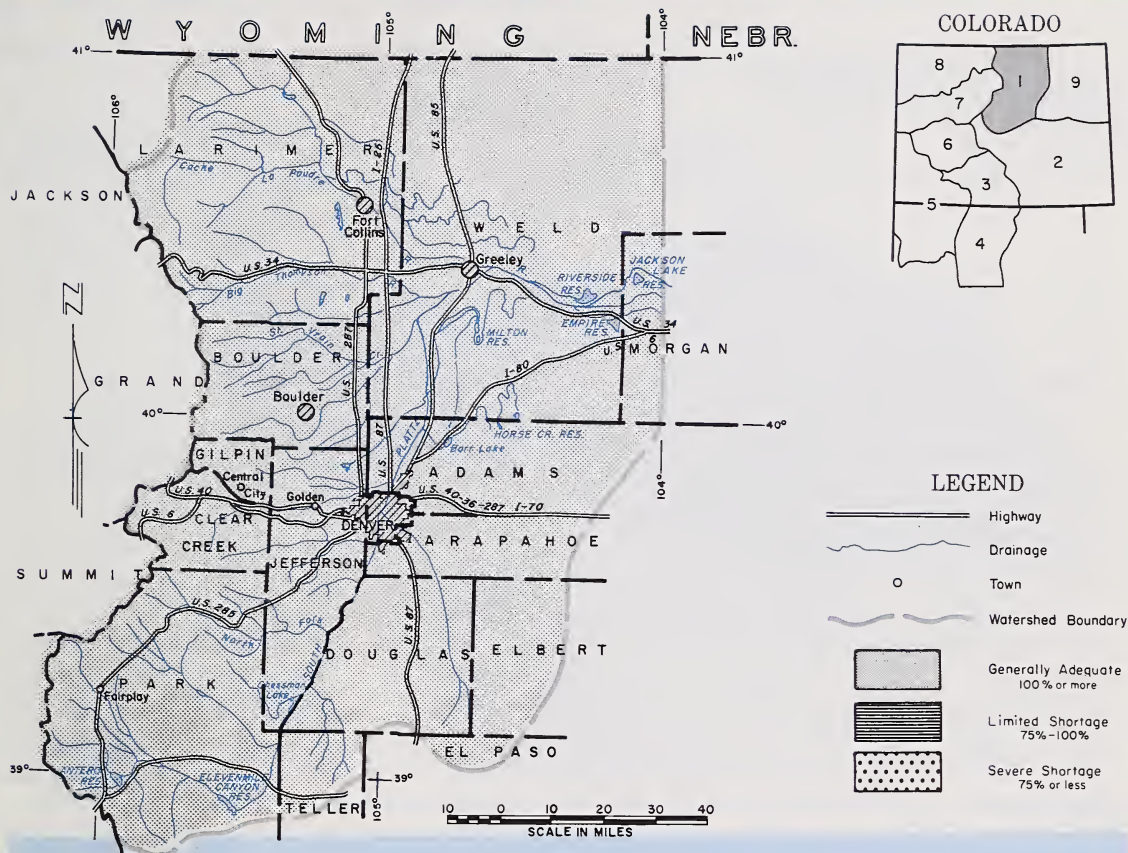


# WATER SUPPLY OUTLOOK FOR THE SOIL CONSERVATION DISTRICTS IN THE SOUTH PLATTE RIVER WATERSHED IN COLORADO

as of

May 1, 1971

**U.S. DEPARTMENT OF AGRICULTURE · SOIL CONSERVATION SERVICE**  
**COLORADO EXPERIMENT STATION, STATE ENGINEERS OF COLORADO AND NEW MEXICO**



## YOUR WATER SUPPLY

WATER SUPPLIES ON THE UPPER SOUTH PLATTE AND ITS TRIBUTARIES WILL BE THE BEST IN MANY YEARS. ALL STREAMS IN THE AREA WILL FLOW ABOVE NORMAL. WARM WEATHER AND HEAVY PRECIPITATION COULD CAUSE HIGH WATER ON ANY OF THESE STREAMS. LATE APRIL STORMS ADDED A CONSIDERABLE AMOUNT OF MOISTURE TO THE SOILS IN THE IRRIGATED AREAS.

CARRY-OVER STORAGE IS EXCELLENT. ALL RESERVOIRS SHOULD FILL.

This report prepared by  
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SOIL CONSERVATION SERVICE, COLORADO STATE UNIVERSITY  
FORT COLLINS, COLORADO

Issued by  
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U. S. DEPARTMENT OF AGRICULTURE - SOIL CONSERVATION SERVICE  
DENVER, COLORADO DENVER, COLORADO

*The Conservation of Water begins with the Snow Survey*

# STREAMFLOW FORECASTS (1000 Ac. Ft.) Apr-Sept

FORECAST POINT	FORECAST	% of Average	Average <sup>+</sup>
Big Thompson at Drake (1)	117	117	100
Boulder at Orodell	70	143	49
Cache La Poudre at Canon Mouth (2)	250	116	215
Clear Cr. at Golden (3)	155	130	119
St. Vrain at Lyons (4)	95	136	70

(1) Observed flow plus by-pass to power plants. (2) Observed flow minus trans-basin diversions plus municipal and irrigation diversions. (3) Observed flow minus diversion through August P. Gumlick Tunnel. (4) Observed flow plus change in storage in Price Reservoir.

## SUMMARY of SNOW MEASUREMENTS

(COMPARISON WITH PREVIOUS YEARS)

RIVER BASIN and/or SUB-WATERSHED	Number of Courses Averaged	THIS YEAR'S SNOW WATER AS PERCENT OF	
		Last Year	Average <sup>+</sup>
Big Thompson	5	85	132
Boulder	3	75	129
Cache La Poudre	8	86	143
Clear Creek	5	68	106
Saint Vrain	3	133	224
South Platte	3	69	138

# WATER SUPPLY OUTLOOK

Expressed as "Poor, Fair, Average, Excellent" With Respect to Usual Supply.

STREAM or AREA	Flow Period	
	Spring Season	Late Season
Bear Creek	Exc.	Exc.
Coal Creek	Exc.	Exc.
North Fork of South Platte	Exc.	Exc.
North Fork of Cache La Poudre	Exc.	Exc.
Ralston Creek	Exc.	Exc.
Rock Creek	Exc.	Exc.

## SOIL MOISTURE

RIVER BASIN	Number of Stations	THIS YEAR'S MOISTURE as PERCENT OF:	
		Last Year	Average <sup>+</sup>
Big Thompson	3	93	101
Boulder	1	76	81
Cache La Poudre	2	132	120
Clear Creek	2	--	138
Saint Vrain	2	111	117
South Platte	2	134	119

## RESERVOIR STORAGE (Thousand Ac. Ft.) END OF MONTH

RESERVOIR	Usable Capacity	Usable Storage		
		This Year	Last Year	Average <sup>+</sup>
Antero	33.0	15.9	15.9	10.6
Barr Lake	32.2	29.0	28.0	23.0
Black Hollow	8.0	4.3	4.0	3.5
Boyd Lake	44.0	45.4	41.3	27.7
Cache La Poudre	9.5	9.5	8.9	8.0
Carter Lake	108.9	109.0	104.5	86.4
Chambers Lake	8.8	4.9	3.4	3.3
Cheesman	79.0	77.7	79.1	50.2
Cobb Lake	34.0	21.9	18.5	9.8
Eleven Mile	97.8	96.4	96.4	72.9
Fossil Creek	11.6	10.3	10.3	7.0
Gross	43.1	34.1	36.7	17.4
Halligan	6.4	6.4	3.0	5.6

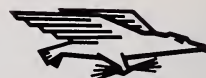
## RESERVOIR STORAGE (Thousand Ac. Ft.) END OF MONTH

RESERVOIR	Usable Capacity	Usable Storage		
		This Year	Last Year	Average <sup>+</sup>
Horsetooth	143.5	128.4	123.6	116.9
Lake Loveland	14.3	12.7	10.4	9.0
Lone Tree	9.2	8.8	8.1	7.9
Mariano	5.4	5.5	5.1	2.0
Marshall	10.3	9.4	8.5	4.0
Marston	18.0	16.7	16.6	15.5
Milton	24.4	16.3	16.0	11.0
Standley	42.0	34.8	37.2	11.9
Terry Lake	8.2	7.1	6.1	5.3
Union	12.7	12.7	12.7	8.0
Windsor	18.6	11.7	14.3	14.7

+ 1953-1967 period.

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May 1, 1971

The map displays the state of Colorado with its county boundaries and major water features. The legend indicates three levels of water availability: Generally Adequate (100% or more), Limited Shortage (75%-100%), and Severe Shortage (75% or less). The map also shows major highways, drainage patterns, and watershed boundaries. An inset map in the top right corner shows the location of Colorado within the United States, with the state number 9.

## YOUR WATER SUPPLY

SOUTHERN TRIBUTARIES, THE CUCHARAS AND PURGATORIE ARE IN POOR CONDITION. SNOW HAS PRACTICALLY DISAPPEARED. FLOWS ARE EXPECTED TO BE ONLY ABOUT HALF OF NORMAL. UNLESS SUMMER RAINS ARE GOOD, WATER SHORTAGES WILL EXIST.

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U. S. DEPARTMENT OF AGRICULTURE - SOIL CONSERVATION SERVICE  
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W.D. McCORKLE ---AREA CONSERVATIONIST  
LA JUNTA, COLORADO

## *The Conservation of Water begins with the Snow Survey*

# STREAMFLOW FORECASTS (1000 Ac. Ft.) Apr-Sept

FORECAST POINT	FORECAST	% of Average	Average +
Arkansas nr Pueblo (1)	275	92	298
Arkansas nr Salida (1)	300	97	309
Cucharas nr LaVeta	5	42	12
Purgatorie at Trinidad	25	54	46

(1) Observed flow plus change in Clear Creek, Twin Lakes and Turquoise Reservoirs minus diversions through Busk Ivanhoe, Divide, Twin Lakes and Homestake Tunnels and Ewing, Front Pass, Wurtz and Colombine ditches.

## SUMMARY OF SNOW MEASUREMENTS

(COMPARISON WITH PREVIOUS YEARS)

RIVER BASIN and/or SUB-WATERSHED	Number of Courses Averaged	THIS YEAR'S SNOW WATER AS PERCENT OF	
		Last Year	Average +
Arkansas	9	57	95
Cucharas and Purgatoire	3	0	0

# WATER SUPPLY OUTLOOK

Expressed as "Poor, Fair, Average, Excellent" With Respect to Usual Supply.

STREAM or AREA	Flow Period	
	Spring Season	Late Season
Apishapa	Avg.	Poor
Fountain Creek	Avg.	Fair
Grape	Avg.	Fair
Hardscrable Creek	Avg.	Poor
Huerfano	Avg.	Poor
Monument Creek	Avg.	Fair

## SOIL MOISTURE

RIVER BASIN	Number of Stations	THIS YEAR'S MOISTURE as PERCENT OF:	
		Last Year	Average +
Arkansas	3	117	86
Cucharas and Purgatoire	1	103	102

## RESERVOIR STORAGE (Thousand Ac. Ft.) END OF MONTH

RESERVOIR	Usable Capacity	Usable Storage		
		This Year	Last Year	Average +
Adobe	61.6	45.4	17.3	10.6
Clear Creek	11.4	6.0	10.1	6.4
Cucharas	40.0	--	1.8	4.8
Great Plains	150.0	102.2	114.9	35.9
Horse Creek	26.9	9.0	19.7	4.7

## RESERVOIR STORAGE (Thousand Ac. Ft.) END OF MONTH

RESERVOIR	Usable Capacity	Usable Storage		
		This Year	Last Year	Average +
John Martin	353.9	2.6	57.0	67.9
Meredith	41.9	24.2	24.8	9.3
Model	15.0	0	2.4	2.4
Turquoise	130.0	51.3	42.8	6.2
Twin Lakes	57.9	27.1	37.3	17.7

+ 1953-1967 period.

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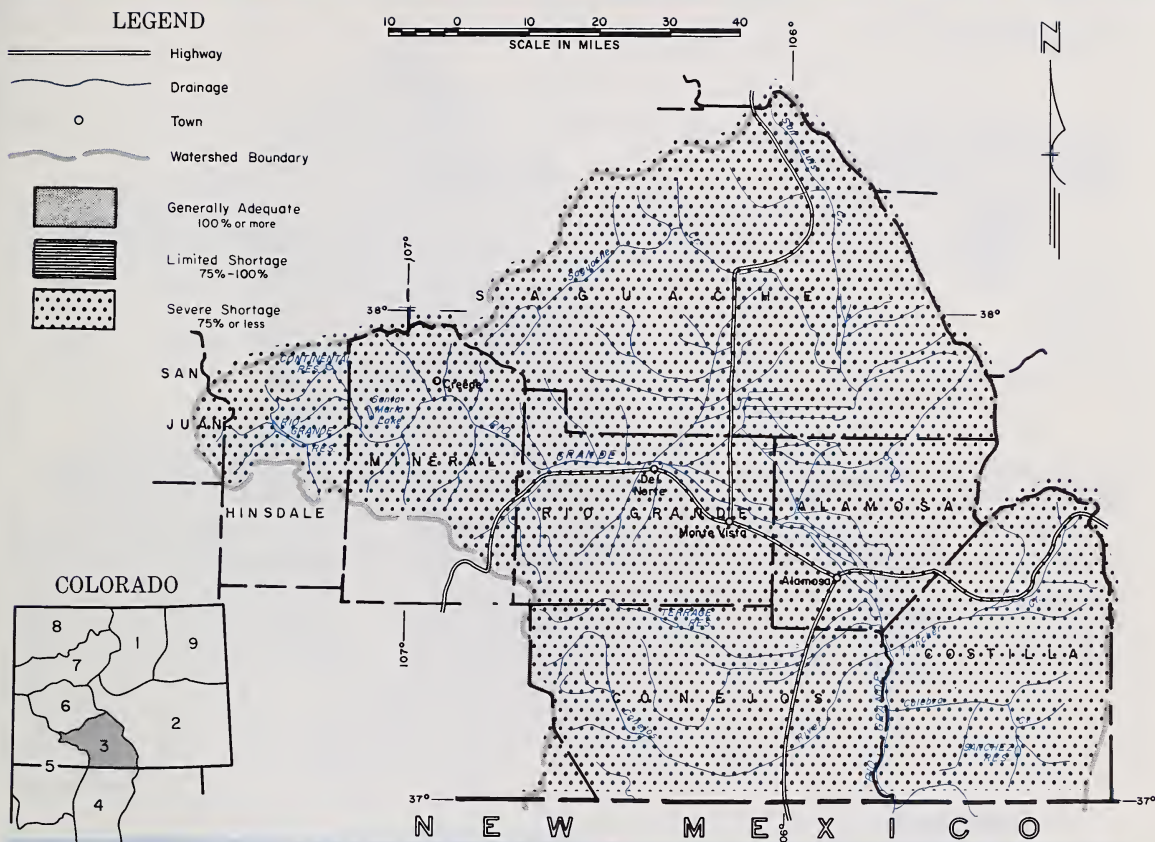
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# WATER SUPPLY OUTLOOK FOR THE SOIL CONSERVATION DISTRICTS IN THE UPPER RIO GRANDE WATERSHED IN COLORADO

as of  
May 1, 1971

**U. S. DEPARTMENT OF AGRICULTURE · SOIL CONSERVATION SERVICE**  
COLORADO EXPERIMENT STATION, STATE ENGINEERS OF COLORADO AND NEW MEXICO



## YOUR WATER SUPPLY

WATER SUPPLY FORECASTS REMAIN MUCH BELOW AVERAGE ON THE RIO GRANDE BASIN. MOST FORECASTS APPROACH THE MINIMUM ON RECORD. THE SNOW PACK RANGES FROM ZERO ON CULEBRA, 31% ON CONEJOS, 61% ON RIO GRANDE AND 83% ON THE ALAMOSA. THE WOLF CREEK PASS SNOW COURSE HAS THE LOWEST READING SINCE THE MINIMUM IN 1954. TOTAL STORAGE ON SIX RESERVOIRS IS 85,200 ACRE FEET OR 158% OF THE AVERAGE. SOIL MOISTURE CONDITIONS IN THE MOUNTAIN AREAS IS ABOVE AVERAGE.

*This report prepared by*

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FORT COLLINS, COLORADO

*Issued by*

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U. S. DEPARTMENT OF AGRICULTURE - SOIL CONSERVATION SERVICE  
DENVER, COLORADO DURANGO, COLORADO

*The Conservation of Water begins with the Snow Survey*

# STREAMFLOW FORECASTS (1000 Ac. Ft.) Apr-Sept

FORECAST POINT	FORECAST	% of Average	Average +
Alamosa abv Terrace	37	60	62
Conejos nr Mogote (1)	110	60	182
Culebra at San Luis (2)	10	53	19
Rio Grande at 30 Mile Bridge (3)	85	73	117
Rio Grande nr Del Norte (3)	270	62	438
South Fork at South Fork	65	59	110

(1) Observed flow plus change in storage in Platoro Reservoir. (2) Observed flow plus change in storage in Sanchez Reservoir. (3) Observed flow plus change in storage in Santa Maria, Rio Grande and Continental Reservoirs.

## SUMMARY of SNOW MEASUREMENTS

(COMPARISON WITH PREVIOUS YEARS)

RIVER BASIN and/or SUB-WATERSHED	Number of Courses Averaged	THIS YEAR'S SNOW WATER AS PERCENT OF	
		Last Year	Average +
Alamosa	2	80	83
Conejos	3	27	31
Culebra	2	0	0
Rio Grande	10	60	61

# WATER SUPPLY OUTLOOK

Expressed as "Poor, Fair, Average, Excellent" With Respect to Usual Supply.

STREAM or AREA	Flow Period	
	Spring Season	Late Season
Saguache Creek	Poor	Poor
Sangre de Cristo Cr.	Poor	Poor
Trinchera	Poor	Poor

## SOIL MOISTURE

RIVER BASIN	Number of Stations	THIS YEAR'S MOISTURE as PERCENT OF:	
		Last Year	Average +
Alamosa	2	123	113
Conejos	1	103	83
Culebra	1	102	102
Rio Grande	3	112	107

## RESERVOIR STORAGE (Thousand Ac. Ft.) END OF MONTH

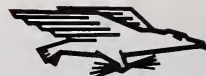
RESERVOIR	Usable Capacity	Usable Storage		
		This Year	Last Year	Average +
Continental	26.7	9.6	6.9	5.8
Platoro	60.0	2.9	4.0	8.1
Rio Grande	45.8	42.0	29.4	15.0

## RESERVOIR STORAGE (Thousand Ac. Ft.) END OF MONTH

RESERVOIR	Usable Capacity	Usable Storage		
		This Year	Last Year	Average +
Sanchez	103.2	17.5	20.0	12.3
Santa Maria	45.0	11.2	6.9	6.9
Terrace	17.7	2.0	9.9	5.7

+ 1953-1967 period.

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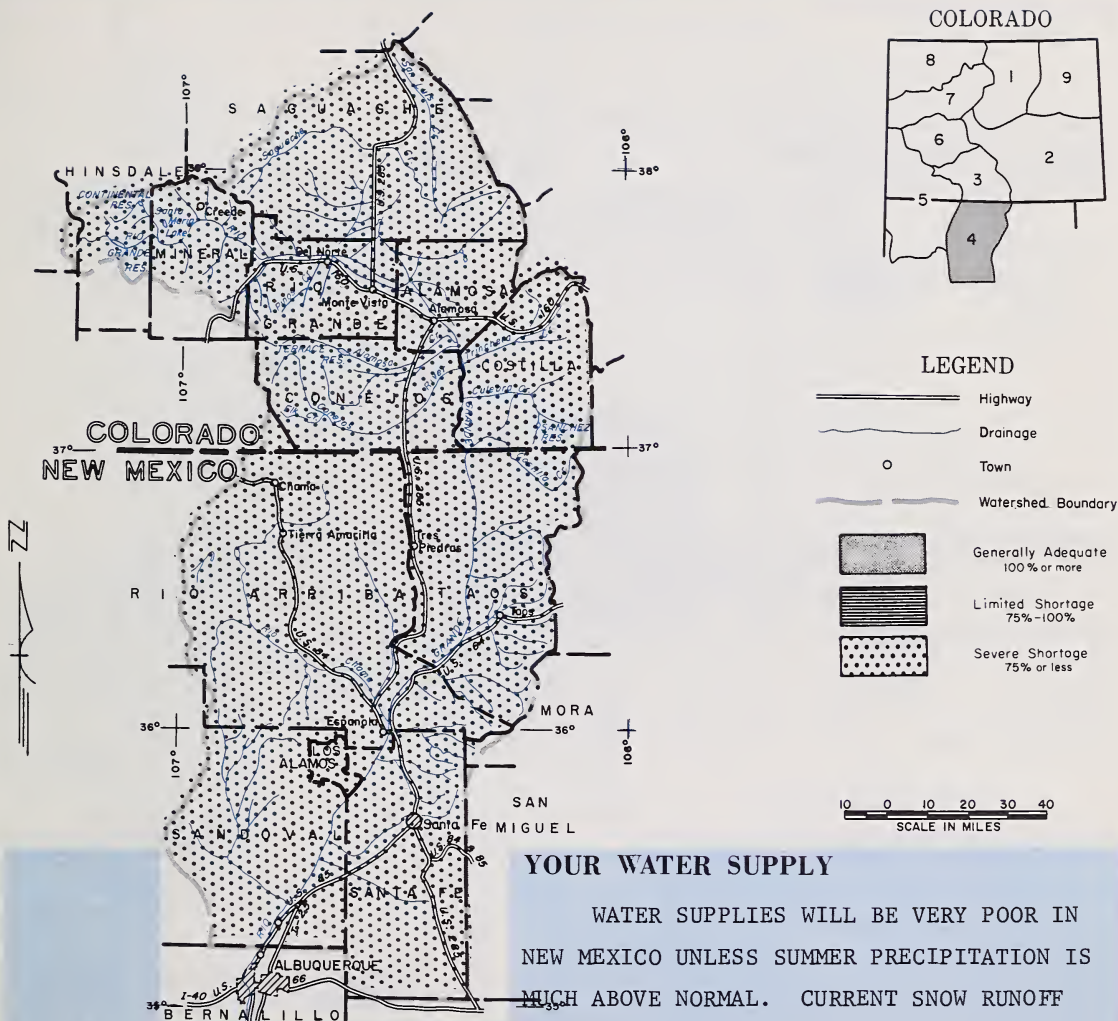
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# WATER SUPPLY OUTLOOK FOR THE SOIL CONSERVATION DISTRICTS IN THE RIO GRANDE WATERSHED IN NEW MEXICO

as of  
May 1, 1971

**U. S. DEPARTMENT OF AGRICULTURE · SOIL CONSERVATION SERVICE**  
COLORADO EXPERIMENT STATION, STATE ENGINEERS OF COLORADO AND NEW MEXICO



WATER SUPPLIES WILL BE VERY POOR IN NEW MEXICO UNLESS SUMMER PRECIPITATION IS MUCH ABOVE NORMAL. CURRENT SNOW RUNOFF IS EXPECTED TO BE NEAR A MINIMUM OF RECORD. SOIL MOISTURE IS REPORTED AS FAIR EXCEPT AROUND THE TAOS AREA WHERE GOOD CONDITIONS EXIST. RESERVOIR STORAGE IS LESS THAN NORMAL, BUT WILL PROVIDE SOME MUCH NEEDED WATER. RAINFALL MUST BE ABOVE NORMAL TO PRODUCE AVERAGE CROPS.

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*The Conservation of Water begins with the Snow Survey*



# STREAMFLOW FORECASTS (1000 Ac. Ft.) Apr-Sept

# WATER SUPPLY OUTLOOK

Expressed as "Poor, Fair, Average, Excellent" With Respect to Usual Supply.

FORECAST POINT	FORECAST	% of Average	Average <sup>+</sup>
Costilla at Cost. (1)	6	33	18
Pecos at Pecos	20	49	41
Rio Chama to ElVado	100	53	188
Rio Grande at Otowi (2)	240	47	513
Rio Grande at San Mar. (2)	100	30	334
Rio Hondo nr Valdez	7	47	15
Red River at Mouth nr Questa	20	63	32

STREAM or AREA	Flow Period	
	Spring Season	Late Season
Embudo Creek	Poor	Poor
Jemez River	Poor	Poor
Mora River	Poor	Poor
Nambe Creek	Poor	Poor
Rio Ojo Caliente	Poor	Poor
Rio Pueblo de Taos	Poor	Poor
Santa Fe Creek	Poor	Poor

The forecast of the Rio Grande at San Marcial is 15% of the Average used by the Elephant Butte Irrigation District. (1) Observed flow plus change in Costilla Reservoir. (2) Observed flow plus change in storage in El Vado and Abiquiu Reservoir.

## SUMMARY of SNOW MEASUREMENTS

(COMPARISON WITH PREVIOUS YEARS)

RIVER BASIN and/or SUB-WATERSHED	Number of Courses Averaged	THIS YEAR'S SNOW WATER AS PERCENT OF	
		Last Year	Average <sup>+</sup>
No snow measurements scheduled this month.			

## SOIL MOISTURE

RIVER BASIN	Number of Stations	THIS YEAR'S MOISTURE as PERCENT OF:	
		Last Year	Average <sup>+</sup>
No soil moisture readings scheduled this month.			

## RESERVOIR STORAGE (Thousand Ac. Ft.) END OF MONTH

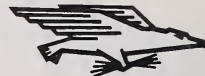
RESERVOIR	Usable Capacity	Usable Storage		
		This Year	Last Year	Average <sup>+</sup>
Alamogordo	111	33	85	64
Caballo	344	57	53	75
Conchas	273	130	233	150
Elephant Butte	2195	291	434	322

## RESERVOIR STORAGE (Thousand Ac. Ft.) END OF MONTH

RESERVOIR	Usable Capacity	Usable Storage		
		This Year	Last Year	Average <sup>+</sup>
ElVado	195	21	8	31
McMillen-Avalon	32	12	12	12

+ 1953-1967 period.

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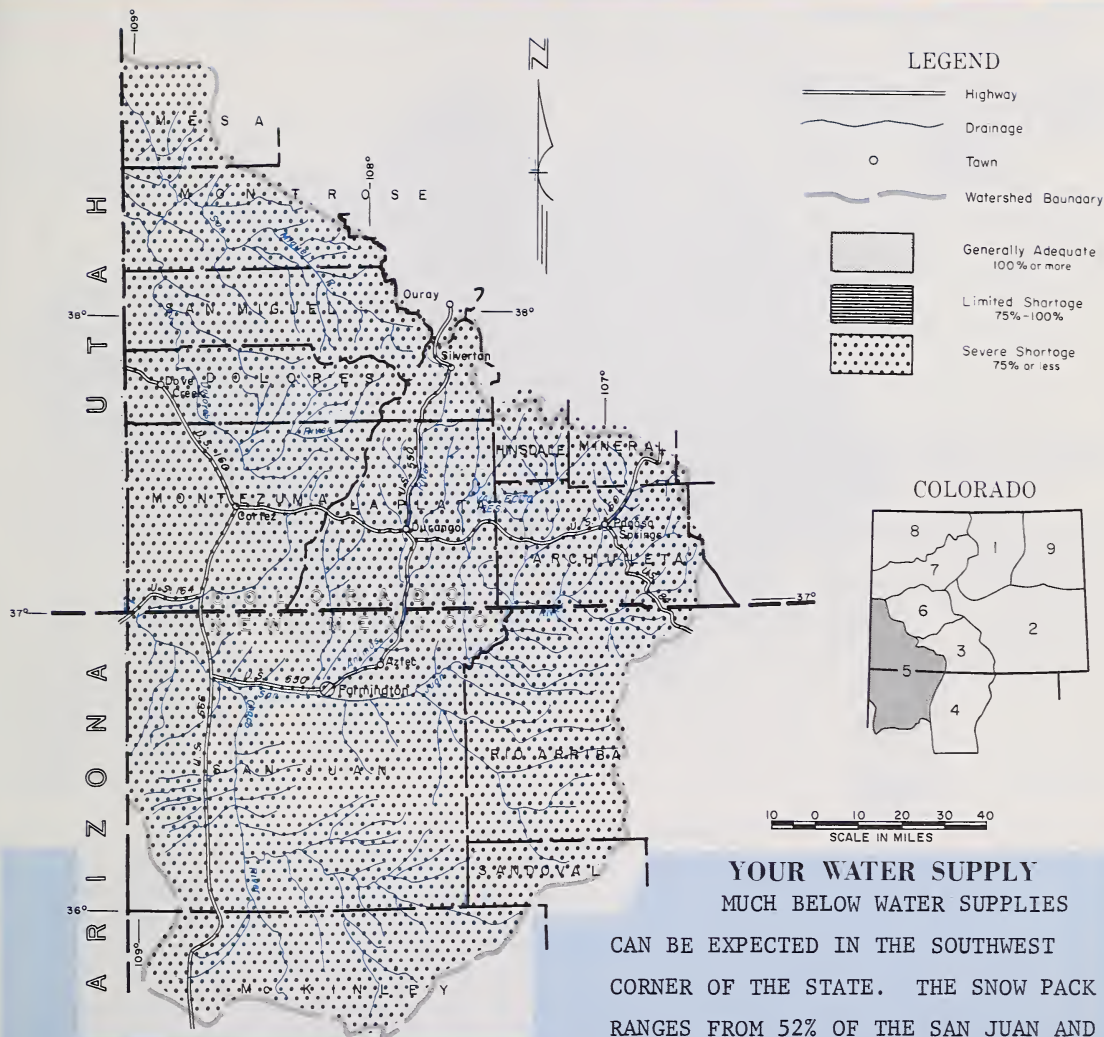
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# WATER SUPPLY OUTLOOK FOR THE SOIL CONSERVATION DISTRICTS IN THE SAN MIGUEL, DOLORES, ANIMAS, SAN JUAN WATERSHEDS IN COLORADO AND NEW MEXICO

as of  
May 1, 1971

**U. S. DEPARTMENT OF AGRICULTURE · SOIL CONSERVATION SERVICE**  
COLORADO EXPERIMENT STATION, STATE ENGINEERS OF COLORADO AND NEW MEXICO



## YOUR WATER SUPPLY MUCH BELOW WATER SUPPLIES

CAN BE EXPECTED IN THE SOUTHWEST  
CORNER OF THE STATE. THE SNOW PACK  
RANGES FROM 52% OF THE SAN JUAN AND  
DOLORES TO 74% ON THE ANIMAS.

RESERVOIR STORAGE IS EXCELLENT WITH GROUNDHOG AT 211%, LEMON 160% AND  
VALLECITO 116% OF AVERAGE.

This report prepared by

JACK N. WASHCHEK and RONALD E. MORELAND  
SOIL CONSERVATION SERVICE, COLORADO STATE UNIVERSITY  
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Issued by

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*The Conservation of Water begins with the Snow Survey*

# STREAMFLOW FORECASTS (1000 Ac. Ft.) Apr-Sept

FORECAST POINT	FORECAST	% of Average	Average +
Animas at Durango	300	73	409
Dolores at Dolores	130	56	231
La Plata at Hesperus	15	63	24
Los Pinos at Bayfield			
(1)	115	59	194
Piedra Cr. at Piedra	75	46	163
San Juan at Carracas	210	55	379
Inflow to Navajo Res.			
(1) (Apr-Jul)	310	50	619

(1) Observed flow plus change in storage in Vallecito Reservoir.

## SUMMARY of SNOW MEASUREMENTS

(COMPARISON WITH PREVIOUS YEARS)

RIVER BASIN and/or SUB-WATERSHED	Number of Courses Averaged	THIS YEAR'S SNOW WATER AS PERCENT OF:	
		Last Year	Average +
Animas	6	61	74
Dolores	4	30	52
San Juan	3	56	52

# WATER SUPPLY OUTLOOK

Expressed as "Poor, Fair, Average, Excellent" With Respect to Usual Supply.

STREAM or AREA	Flow Period	
	Spring Season	Late Season
Florida	Poor	Poor
Mancos	Poor	Poor
San Miguel	Poor	Poor

## SOIL MOISTURE

RIVER BASIN	Number of Stations	THIS YEAR'S MOISTURE as PERCENT OF:	
		Last Year	Average +
Animas	3	121	85
Dolores	3	89	78
San Juan	2	123	87

## RESERVOIR STORAGE (Thousand Ac. Ft.) END OF MONTH

RESERVOIR	Usable Capacity	Usable Storage		
		This Year	Last Year	Average +
Groundhog	22	19	14	9
Lemon	40	31	32	19
Navajo	1696	865	876	326
Vallecito	126	95	83	59

## RESERVOIR STORAGE (Thousand Ac. Ft.) END OF MONTH

RESERVOIR	Usable Capacity	Usable Storage		
		This Year	Last Year	Average +

+ 1953-1967 period.

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# STREAMFLOW FORECASTS (1000 Ac. Ft.) Apr-Sept

FORECAST POINT	FORECAST	% of Average	Average +
Gunnison Rv. inflow to Blue Mesa	560	73	767
Gunnison nr Grand Junction (1)	950	84	1137
Surface Creek nr Cedaridge	14	88	16
Uncompahgre at Colona	85	66	129

(1) Observed flow plus change in storage in Taylor, Blue Mesa and Morrow Point Reservoirs.

## SUMMARY of SNOW MEASUREMENTS

(COMPARISON WITH PREVIOUS YEARS)

RIVER BASIN and/or SUB-WATERSHED	Number of Courses Averaged	THIS YEAR'S SNOW WATER AS PERCENT OF	
		Last Year	Average +
Gunnison	12	62	87
Surface Creek	3	76	96
Uncompahgre	3	56	88

# WATER SUPPLY OUTLOOK

Expressed as "Poor, Fair, Average, Excellent" With Respect to Usual Supply.

STREAM or AREA	Flow Period	
	Spring Season	Late Season
North Fork of Gunnison Taylor	Exc. Exc.	Exc. Avg.

## SOIL MOISTURE

RIVER BASIN	Number of Stations	THIS YEAR'S MOISTURE as PERCENT OF:	
		Last Year	Average +
Gunnison	1	100	100
Surface Creek	1	108	126
Uncompahgre	1	108	126

## RESERVOIR STORAGE (Thousand Ac. Ft.) END OF MONTH

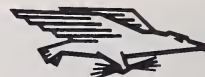
RESERVOIR	Usable Capacity	Usable Storage		
		This Year	Last Year	Average +
Blue Mesa	941	374	426	--
Morrow Point	121	115	117	--
Taylor	106	84	54	59

## RESERVOIR STORAGE (Thousand Ac. Ft.) END OF MONTH

RESERVOIR	Usable Capacity	Usable Storage		
		This Year	Last Year	Average +

+ 1953-1967 period.

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### LEGEND



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*Issued by*

## *The Conservation of Water begins with the Snow Survey*

# STREAMFLOW FORECASTS (1000 Ac. Ft.) Apr-Sept

# WATER SUPPLY OUTLOOK

Expressed as "Poor, Fair, Average, Excellent" With Respect to Usual Supply.

FORECAST POINT	FORECAST	% of Average	Average +
Blue abv Green Mt. (1)	270	114	236
Colo. Rv. inflow to Granby Res. (2)	275	126	219
Colo. Rv. nr Dots. (3)	1600	116	1375
Roaring Fork at Glenwood Springs (4)	730	105	692
Williams Fork nr. Par. (5)	85	142	60
Willow Creek inflow to Willow Cr. Reservoir	60	130	46
Colo. nr Cameo (6)	2480	112	2216

STREAM or AREA	Flow Period	
	Spring Season	Late Season
Brush	Exc.	Exc.
Eagle River	Exc.	Exc.
Gypsum Creek	Exc.	Exc.

(1) Observed flow plus diversions through Roberts Tunnel and change in storage in Dillon Reservoir. (2) Observed flow corrected for change in storage in Lake Granby as furnished by U.S.B.R. and diversions by Adams Tunnel and Grand River Ditch. (3) Observed flow plus the changes as indicated in (1), (2) and (5) plus Moffat Ditch and change in Homestake, Williams Fork, Green Mt. and Willow Creek Reservoirs. (4) Observed flow plus diversions through Divide and Twin Lakes Tunnels plus change in storage in Ruedi Reservoir. (5) Observed flow plus diversions through August P. Gumlick Tunnel. (6) Observed flow plus the changes as indicated in (3) and (4).

## SUMMARY of SNOW MEASUREMENTS

(COMPARISON WITH PREVIOUS YEARS)

RIVER BASIN and/or SUB-WATERSHED	Number of Courses Averaged	THIS YEAR'S SNOW WATER AS PERCENT OF	
		Last Year	Average +
Blue River	8	67	110
Colorado	20	81	141
Plateau	3	79	93
Roaring Fork	7	68	107
Williams Fork	3	78	136
Willow	2	62	121

## SOIL MOISTURE

RIVER BASIN	Number of Stations	THIS YEAR'S MOISTURE as PERCENT OF:	
		Last Year	Average +
Blue River	1	109	120
Colorado	5	104	107
Roaring Fork	1	101	108
Willow	1	101	129

## RESERVOIR STORAGE (Thousand Ac. Ft.) END OF MONTH

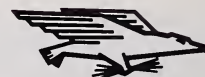
RESERVOIR	Usable Capacity	Usable Storage		
		This Year	Last Year	Average +
Dillon	254	246	239	223
Granby	466	351	226	205
Green Mountain	147	48	37	43
Homestake	43	11	14	--

## RESERVOIR STORAGE (Thousand Ac. Ft.) END OF MONTH

RESERVOIR	Usable Capacity	Usable Storage		
		This Year	Last Year	Average +
Ruedi	101	50	57	--
Vega	32	25	16	13
Williams Fork	97	53	39	34
Willow Creek	9	3	9	--

+ 1953-1967 period.

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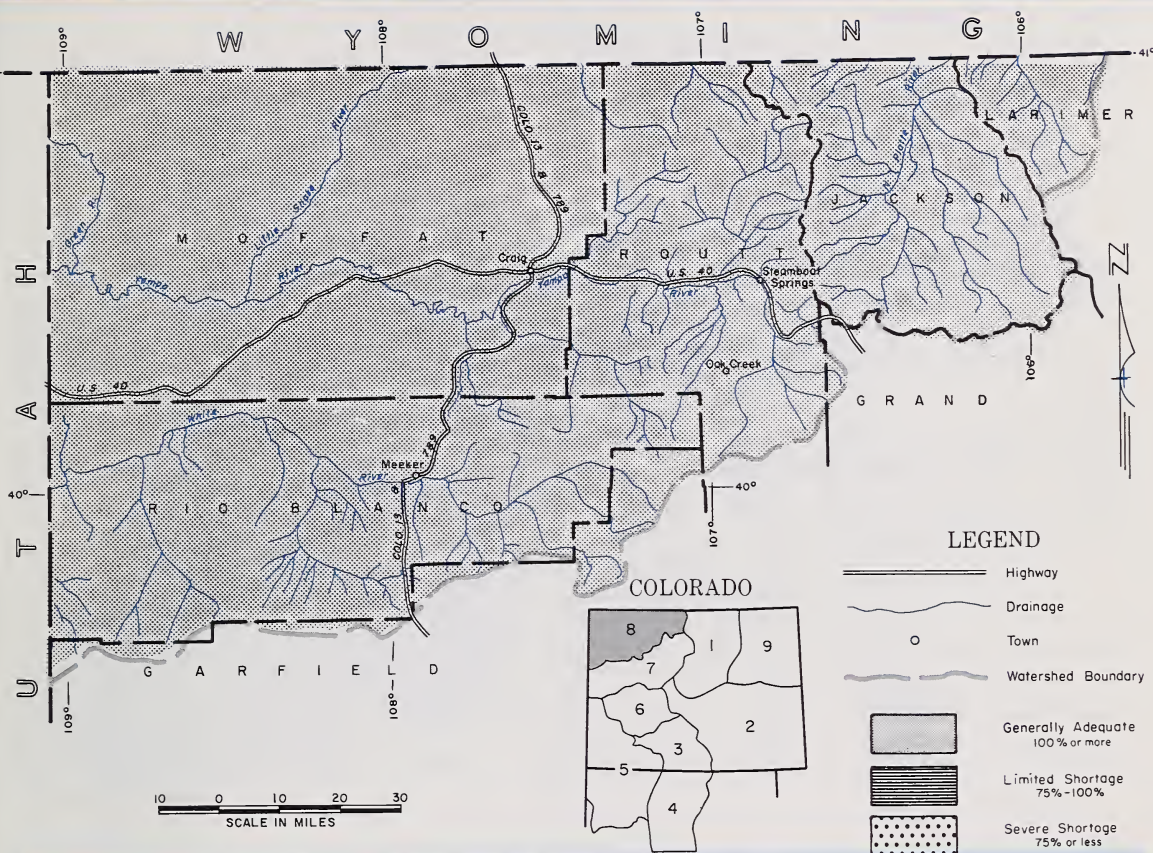
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# WATER SUPPLY OUTLOOK FOR THE SOIL CONSERVATION DISTRICTS IN THE YAMPA, WHITE, AND NORTH PLATTE RIVER WATERSHEDS IN COLORADO

as of  
May 1, 1971

**U. S. DEPARTMENT OF AGRICULTURE · SOIL CONSERVATION SERVICE**  
COLORADO EXPERIMENT STATION, STATE ENGINEERS OF COLORADO AND NEW MEXICO



## YOUR WATER SUPPLY

STREAMFLOW FORECASTS ARE MUCH ABOVE AVERAGE ON ALL STREAMS IN THIS AREA. FORECASTS ON THE NORTH PLATTE AT 190% AND LITTLE SNAKE AT 170% ARE NEAR THE MAXIMUM RECORD. OTHER STREAM FORECASTS RANGE FROM 123% TO 159%. SOIL MOISTURE CONDITIONS ARE ABOVE AVERAGE IN BOTH THE IRRIGATED AND MOUNTAIN AREAS.

This report prepared by  
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DENVER, COLORADO GLENWOOD SPRINGS, COLORADO

*The Conservation of Water begins with the Snow Survey*

# STREAMFLOW FORECASTS (1000 Ac. Ft.) Apr-Sept

# WATER SUPPLY OUTLOOK

Expressed as "Poor, Fair, Average, Excellent" With Respect to Usual Supply.

FORECAST POINT	FORECAST	% of Average	Average <sup>†</sup>
Elk at Clark	245	128	191
Laramie at Jelm	165	159	104
Little Snake at Lily	470	170	277
North Platte at Northgate	410	190	225
White nr Meeker	360	123	293
Yampa nr Maybell	1200	141	853
Yampa at Steamboat Springs	365	140	260

STREAM or AREA	Flow Period	
	Spring Season	Late Season
Canadian River	Exc.	Exc.
Hunt Creek	Exc.	Exc.
Illinois River	Exc.	Exc.
Michigan River	Exc.	Exc.
Oak Creek	Exc.	Exc.
Trout Creek	Exc.	Exc.

## SUMMARY of SNOW MEASUREMENTS (COMPARISON WITH PREVIOUS YEARS)

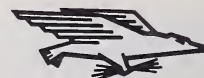
RIVER BASIN and/or SUB-WATERSHED	Number of Courses Averaged	THIS YEAR'S SNOW WATER AS PERCENT OF	
		Last Year	Average <sup>†</sup>
Elk	3	66	142
Laramie	3	97	131
North Platte	5	86	135
White	2	70	117
Yampa	6	87	141

## SOIL MOISTURE

RIVER BASIN	Number of Stations	THIS YEAR'S MOISTURE as PERCENT OF:	
		Last Year	Average <sup>†</sup>
Laramie	1	134	117
North Platte	2	113	118
Yampa	1	104	85

<sup>†</sup> 1953-1967 period.

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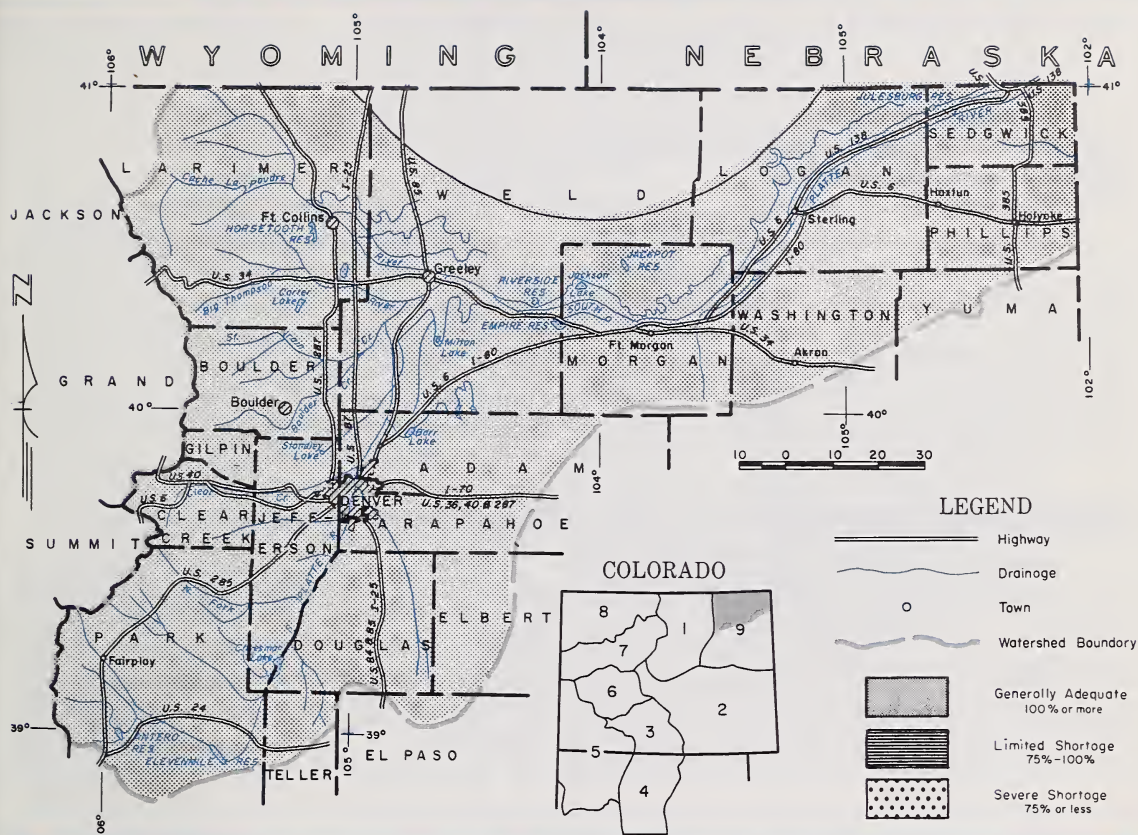
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# WATER SUPPLY OUTLOOK FOR THE SOIL CONSERVATION DISTRICTS IN THE LOWER SOUTH PLATTE RIVER WATERSHED IN COLORADO as of

May 1, 1971

**U. S. DEPARTMENT OF AGRICULTURE · SOIL CONSERVATION SERVICE**  
COLORADO EXPERIMENT STATION, STATE ENGINEERS OF COLORADO AND NEW MEXICO



## YOUR WATER SUPPLY

WATER SUPPLIES WILL BE EXCELLENT THIS YEAR ON THE SOUTH PLATTE AND ITS TRIBUTARIES. FORECASTS RANGE FROM 116% ON THE CACHE LA POUDRE TO 143% ON THE BOULDER AT ORODELL. THE LATE APRIL STORM PRODUCED HIGH WATER ON MANY OF THE STREAMS AND MORE CAN BE EXPECTED.

SOILS ARE IN EXCELLENT CONDITION IN THE IRRIGATED AREAS.

CARRY-OVER STORAGE IS ABOVE NORMAL AND SHOULD ALL FILL AGAIN.

THIS YEAR COULD BE ONE OF THE BEST WATER YEARS IN THE LAST DECADE.

This report prepared by

JACK N. WASHICHEK and RONALD E. MORELAND  
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FORT COLLINS, COLORADO

Issued by

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U. S. DEPARTMENT OF AGRICULTURE - SOIL CONSERVATION SERVICE  
DENVER, COLORADO

*The Conservation of Water begins with the Snow Survey*

# STREAMFLOW FORECASTS (1000 Ac. Ft.) Apr-Sept

FORECAST POINT	FORECAST	% of Average	Average +
Big Thompson at Drake (1)	117	117	100
Boulder at Orodell	70	143	49
Cache La Poudre at Canon Mouth (2)	250	116	215
Clear Creek at Golden (3)	155	130	119
Saint Vrain at Lyons (4)	95	136	70

(1) Observed flow plus by-pass to power plants. (2) Observed flow minus trans-basin diversions plus municipal and irrigation diversions. (3) Observed flow minus diversion through August P. Gumlick Tunnel. (4) Observed flow plus change in storage in Price Reservoir.

## SUMMARY of SNOW MEASUREMENTS

(COMPARISON WITH PREVIOUS YEARS)

RIVER BASIN and/or SUB-WATERSHED	Number of Courses Averaged	THIS YEAR'S SNOW WATER AS PERCENT OF	
		Last Year	Average +
Big Thompson	5	85	132
Boulder	3	75	129
Cache La Poudre	8	86	143
Clear Creek	5	68	106
Saint Vrain	3	133	224
South Platte	3	69	138

# WATER SUPPLY OUTLOOK

Expressed as Poor, Fair, Average, Excellent With Respect to Usual Supply.

STREAM or AREA	Flow Period	
	Spring Season	Late Season
South Platte from Greeley to Fort Morgan	Exc.	Exc.
South Platte from Fort Morgan to Sterling	Exc.	Exc.
South Platte below Sterling	Exc.	Exc.

## SOIL MOISTURE

RIVER BASIN	Number of Stations	THIS YEAR'S MOISTURE as PERCENT OF:	
		Last Year	Average +
Big Thompson	3	93	101
Boulder	1	76	81
Cache La Poudre	2	132	120
Clear Creek	2	--	138
Saint Vrain	2	111	117
South Platte	2	134	119

## RESERVOIR STORAGE (Thousand Ac. Ft.) END OF MONTH

RESERVOIR	Usable Capacity	Usable Storage		
		This Year	Last Year	Average +
Carter	108.9	109.0	104.5	86.4
Cheesman	79.0	77.7	79.1	50.2
Eleven Mile	97.8	96.4	96.4	72.9
Empire	37.7		33.9	29.0
Horsetooth	143.5	128.4	123.6	116.9

## RESERVOIR STORAGE (Thousand Ac. Ft.) END OF MONTH

RESERVOIR	Usable Capacity	Usable Storage		
		This Year	Last Year	Average +
Jackson	35.4		34.4	33.7
Julesburg	28.2	23.3	23.6	22.1
Prewitt	32.8	28.8	26.8	17.5
Point of Rocks	70.0	68.9	70.3	60.8
Riverside	57.5		60.5	51.0

+ 1953-1967 period.

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# APPENDIX I

SNOW COURSE MEASUREMENTS as of May 1, 1971

SNOW COURSE	CURRENT INFORMATION			PAST RECORD	
	DATE OF SURVEY	SNOW DEPTH (INCHES)	WATER CONTENT (INCHES)	WATER CONTENT (INCHES)	
				LAST YEAR	AVG 53-67
NORTH PLATTE BASIN					
<u>Laramie River</u>					
Deadman Hill	5/3	60	23.6	26.1	17.1
McIntyre	4/26	33	11.7	15.2	9.4
Roach	4/27	77	23.9	20.0	18.7
<u>North Platte River</u>					
Cameron Pass	4/28	96	38.6	37.8	28.4
Columbine Lodge	4/27	61	27.1	30.4	21.4
Northgate	4/28	14	5.5	9.3	2.7
Park View	4/26	25	7.9	13.0	5.6
Willow Cr. Pass(B)	4/26	34	12.8	16.5	10.0
SOUTH PLATTE BASIN					
<u>Boulder Creek</u>					
Baltimore	4/29	16	5.8	12.5	2.9
Boulder Falls	4/28	54	16.8	19.6	11.9
University Camp	4/28	73	23.1	28.9	20.7
<u>Big Thompson River</u>					
Deer Ridge	4/30	18	4.4	9.4	2.6
Hidden Valley	4/28	53	14.3	16.8	12.0
Lake Irene (B)	4/26	82	29.2	31.1	22.4
Long's Peak	5/1	54	16.4	19.4	12.0
Two Mile	4/28	80	22.5	25.8	17.0
<u>Cache La Poudre</u>					
Bennett Creek	4/29	29	9.1	11.5	- -
Big South	5/2	0	0.0	0.4	0.6
Cameron Pass	4/28	96	38.6	37.8	28.4
Chambers Lake	5/2	15	6.9	12.5	5.3
Deadman Hill	5/3	60	23.6	26.1	17.1
Hour Glass Lake	4/29	30	9.4	12.1	5.6
Joe Wright	4/28	87	33.7	35.8	- -
Lost Lake	5/2	34	11.7	17.4	8.9
Pine Creek	4/30	3	1.6	1.0	0.1
Red Feather	4/30	30	8.5	8.9	4.4
<u>Clear Creek</u>					
Berthoud Falls	4/29	48	17.0	22.5	12.1
Empire	4/29	20	6.8	14.1	6.8
Grizzly Peak (B)	4/29	70	24.5	29.5	19.4
Loveland Lift	4/30	64	20.3	29.9	25.3
Loveland Pass	4/30	39	14.4	26.9	14.5
<u>Saint Vrain River</u>					
Copeland Lake	4/29	26	11.8	5.7	1.7
Ward	4/28	34	9.8	10.8	5.4
Wild Basin	4/29	59	21.7	16.0	12.2
<u>South Platte River</u>					
Como	4/28	11	4.1	13.5	- -
Geneva Park	4/29	3	0.9	8.0	1.2
Horseshoe Mt.	4/27	35	11.2	17.0	- -
Hoosier Pass	4/28	41	13.4	17.5	12.0
Jefferson Creek	4/28	22	13.8	15.5	7.1
Mosquito	4/27	13	3.7	16.2	- -
Trout Creek Pass	4/27	1	0.1	6.4	- -
ARKANSAS BASIN					
<u>Arkansas River</u>					
Bigelow Divide	4/27	16	5.3	8.6	2.2
Cooper Hill (B)				17.1	11.1
East Fork	4/28	22	7.8	12.2	7.4
Four Mile Park	4/29	1	0.3	7.2	1.0
Fremont Pass	4/28	52	17.7	22.8	17.9
Garfield	4/29	17	5.9	14.6	8.5
Monarch Pass	4/29	38	14.0	20.9	16.5
Tennessee Pass	4/29	17	6.7	13.0	7.7
Twin Lakes Tunnel	4/28	30	9.9	12.2	8.7
Westcliffe	4/28	0	0.0	7.9	1.0

SNOW COURSE	CURRENT INFORMATION			PAST RECORD	
	DATE OF SURVEY	SNOW DEPTH (INCHES)	WATER CONTENT (INCHES)	WATER CONTENT (INCHES)	
				LAST YEAR	AVG 53-67
<u>Cucharas River</u>					
Blue Lakes	4/30	0	0.0	0.6	0.5
Cucharas Pass	4/30	0	0.0	10.0	--
LaVeta Pass (B)	4/30	0	0.0	4.3	1.6
<u>Purgatoire River</u>					
Bourbon	4/29	0	0.0	7.3	1.7
<b>RIO GRANDE BASIN-Colo</b>					
<u>Alamosa River</u>					
Silver Lakes	4/29	0	0.0	0.6	0.6
Summitville	4/28	51	16.2	19.6	19.0
<u>Conejos River</u>					
Cumbres	4/29	9	3.9	15.2	12.6
Platoro	4/29	9	3.3	11.6	9.9
River Springs	4/29	0	0.0	0.0	0.5
<u>Culebra River</u>					
Brown Cabin				1.9	--
Cottonwood (B)					
Culebra	4/29	0	0.0	7.0	3.5
LaVeta Pass (B)	4/30	0	0.0	4.3	1.6
Trinchera (B)				9.6	--
<u>Rio Grande</u>					
Cochetopa Pass	4/28	8	2.2	7.7	2.6
Grayback	4/29	9	3.4	16.6	--
Hiway	4/29	55	19.8	23.4	28.1
Lake Humphrey	4/29	0	0.0	0.8	0.4
Love Lake	4/29	0	0.0	9.8	--
Pass Creek	4/29	0	0.0	5.2	3.9
Pool Table	4/29	0	0.0	4.1	1.9
Porcupine	4/29	14	4.6	6.1	6.6
Santa Maria	4/29	0	0.0	0.0	0.5
Upper Rio Grande	4/28	3	1.0	1.8	1.8
Wolf Cr. Pass	4/29	17	7.3	21.1	22.0
Wolf Cr. Summit	4/29	65	24.3	28.9	30.0
<b>SAN JUAN-DOLORES</b>					
<u>Animas River</u>					
Cascade	4/27	0	0.0	4.2	3.6
Lemon	4/27	0	0.0	1.3	--
Mineral Creek	4/28	17	6.3	16.1	10.5
Molas Lake	4/28	7	2.4	12.1	6.8
Purgatory				18.2	--
Red Mountain	4/28	70	32.0	36.6	30.3
Silverton Sub-Sta	4/27	0	0.0	0.0	0.1
Spud Mountain	4/28	37	13.7	20.4	22.2
<u>Dolores River</u>					
Lizzard Head	4/29	23	8.3	17.3	12.9
Lone Cone	4/30	9	3.1	15.1	--
Rico	4/29	0	0.0	1.3	0.4
Telluride	4/29	4	1.4	7.3	0.8
Trout Lake	4/29	11	2.1	13.7	8.5
<u>San Juan River</u>					
Chama Divide (B)	4/29	0	0.0	0.0	--
Chamita (B)	4/29	0	0.0	0.0	--
Upper San Juan	4/29	20	8.9	21.7	26.6
Wolf Cr. Pass (B)	4/29	17	7.3	21.1	22.0
Wolf Cr. Summit	4/29	65	24.3	28.9	30.0

NOTE:

NS - No Survey

(B) - On Adjacent Drainage



# APPENDIX I

SNOW COURSE MEASUREMENTS as of May 1, 1971

SNOW COURSE	CURRENT INFORMATION			PAST RECORD	
	DATE OF SURVEY	SNOW DEPTH (INCHES)	WATER CONTENT (INCHES)	WATER CONTENT (INCHES)	
				LAST YEAR	AVG. 53-67
GUNNISON BASIN					
<u>Gunnison River</u>					
Alexander Lake	4/30	52	20.6	27.1	21.0
Black Mesa					15.8
Blue Mesa	4/29	0	0.0	8.1	1.9
Butte	4/27	43	12.6	17.9	-
Cochetopa Pass (B)	4/28	8	2.2	7.7	2.6
Crested Butte	4/27	7	2.0	10.1	7.1
Keystone	4/27	44	16.2	19.2	17.1
Lake City	4/29	8	2.2	9.5	3.5
Long Gulch					
Mesa Lakes (B)	4/30	38	14.9	21.3	15.1
McClure Pass	4/28	21	7.8	17.0	9.3
Park Cone	4/28	14	3.8	12.1	7.7
Park Reservoir	4/28	55	21.5	26.3	23.6
Porphyry Creek	4/29	47	16.5	19.6	16.5
Tomichi	4/29	31	10.4	13.8	10.0
<u>Surface Creek</u>					
Alexander Lake	4/30	52	20.6	27.1	21.0
Mesa Lakes (B)	4/30	38	14.9	21.3	15.1
Park Reservoir	4/28	55	21.5	26.3	23.6
<u>Uncompahgre River</u>					
Ironton Park	4/29	0	0.0	15.6	6.7
Red Mountain Pass	4/28	70	32.0	36.6	30.3
Telluride (B)	4/29	4	1.4	7.3	0.8
COLORADO BASIN (Main)					
<u>Blue River</u>					
Blue River	4/27	15	4.8	12.5	6.4
Fremont Pass	4/28	52	17.7	22.8	17.9
Frisco	4/29	15	4.8	11.4	4.6
Grizzley Peak	4/29	70	24.5	29.5	19.4
Hoosier Pass (B)	4/28	41	13.4	17.5	12.0
Shrine Pass	4/29	55	20.6	27.9	18.7
Snake River	4/29	12	3.4	11.6	3.5
Summit Ranch	4/27	22	6.7	10.6	4.8
<u>Colorado River</u>					
Arrow	4/28	43	17.5	18.6	9.2
Berthoud Pass	4/27	57	21.1	22.8	14.3
Berthoud Summit	4/29	73	26.3	32.4	20.6
Cooper Hill	5/4	36	13.4	17.1	11.1
Fiddler Gulch	NS			18.8	14.7
Glen Mar Ranch	4/26	18	6.4	9.1	3.8
Gore Pass	4/27	30	10.5	13.8	7.3
Grand Lake	4/27	20	6.3	8.4	3.4
Lake Irene	4/26	82	29.2	31.1	22.4
Lapland	4/28	34	10.2	14.8	6.9
Lulu	4/29	74	28.3	29.3	18.3
Lynx Pass	4/27	33	12.0	15.3	7.1
McKenzie Gulch	4/28	0	0.0	4.9	0.6
Middle Fork	4/26	20	6.7	10.3	5.7
Milner	4/26	52	16.2	17.8	12.0
North Inlet	4/27	27	7.8	12.0	5.9
Pando	4/28	23	8.4	14.7	7.7
Phantom Valley	4/26	35	11.0	13.1	6.2
Ranch Creek	4/28	43	14.2	14.9	9.0
Tennessee Pass	4/29	17	6.7	13.0	7.7
Vail Pass	4/29	53	19.9	26.4	15.0
Vasquez	4/28	46	17.3	18.5	12.4

SNOW COURSE	CURRENT INFORMATION			PAST RECORD	
	DATE OF SURVEY	SNOW DEPTH (INCHES)	WATER CONTENT (INCHES)	WATER CONTENT (INCHES)	
				LAST YEAR	AVG. 53-67
<u>Roaring Fork River</u>					
Aspen	4/28	56	17.9	26.7	16.0
Chapman	4/28	40	14.9	18.0	-
Independence Pass	4/28	50	18.1	20.4	16.2
Ivanhoe	4/29	56	20.6	24.6	17.3
Kiln	4/29	36	12.6	13.4	-
Last Chance	4/29	38	13.1	14.5	-
Lift	4/28	61	21.2	24.9	18.0
McClure Pass	4/28	21	7.8	17.0	9.2
Nast	4/28	4	1.0	6.8	1.8
North Lost Trail	4/28	14	5.4	15.5	7.5
<u>Williams Fork River</u>					
Glen Mar Ranch	4/26	18	6.4	9.1	3.8
Jones Pass	4/27	58	20.8	24.1	15.4
Middle Fork	4/26	20	6.7	10.3	5.7
<u>Willow Creek</u>					
Granby	4/26	13	3.7	10.2	3.6
Willow Cr. Pass	4/26	34	12.8	16.5	10.0
<u>Plateau Creek</u>					
Mesa Lakes	4/30	38	14.9	21.3	15.1
Park Reservoir	4/28	55	21.5	26.3	23.6
Trickle Divide	4/28	62	24.4	29.8	26.5
YAMPA BASIN					
<u>Elk River</u>					
Clark	4/29	4	1.5	9.4	3.1
Elk River	4/29	45	18.7	20.6	13.6
Hahn's Peak	4/29	23	9.0	14.1	7.8
<u>White River</u>					
Burro Mountain	4/29	39	16.1	22.2	14.5
Rio Blanco	4/28	30	11.5	17.0	9.1
<u>Yampa River</u>					
Bear River	4/30	25	8.6	15.9	7.4
Columbine (B)	4/27	61	27.1	30.4	21.4
Dry Lake	4/27	53	21.1	23.8	15.2
Lynx Pass (B)	4/27	33	12.0	15.3	7.1
Rabbit Ears	4/27	89	37.6	37.7	25.9
Yampa View	4/27	34	13.8	15.8	8.4

NS - No Survey

(B) - On Adjacent Drainage

# APPENDIX II

## SOIL MOISTURE MEASUREMENTS as of May 1, 1971

STATION	DATE OF SURVEY	CAPACITY (INCHES)	THIS YEAR	LAST YEAR	AVG. ALL DATA
NORTH PLATTE BASIN					
<u>North Platte River</u>					
Muddy Pass	4/27	11.1	9.1	7.1	8.4
Willow Pass	4/26	9.5	9.0	8.9	7.0
SOUTH PLATTE BASIN					
<u>Boulder Creek</u>					
Alpine Camp	4/27	6.9	5.3	4.0	4.3
<u>Big Thompson River</u>					
Beaver Dam	4/27	7.1	5.2	5.5	4.7
Guard Station	4/27	6.9	4.7	3.7	4.5
Two Mile	4/27	9.1	4.9	6.7	5.4
<u>Clear Creek</u>					
Clear Creek	4/30	9.5	8.7	7.4	5.7
Hoop Creek	4/30	4.9	3.4	- -	3.1
<u>Cache La Poudre River</u>					
Feather	5/3	10.1	9.8	7.6	7.9
Laramie Road	5/1	12.4	10.2	7.6	8.7
<u>South Platte River</u>					
Hoosier Pass	4/28	7.8	6.4	5.2	5.4
Kenosha Pass	4/28	4.4	4.2	2.7	3.5
ARKANSAS BASIN					
<u>Arkansas River</u>					
Garfield	4/29	6.7	4.6	4.3	4.8
Leadville	4/27	7.8	3.8	3.2	4.9
Twin Lakes Tunnel	4/28	4.5	2.6	1.9	3.1
RIO GRANDE BASIN - COLORADO					
<u>Conejos River</u>					
Mogote	4/27	10.7	7.3	7.1	8.8
<u>Rio Grande</u>					
Alberta Park	4/28	8.2	5.8	3.9	5.7
Bristol View	4/29	6.1	6.0	5.7	4.7
LaVeta Pass	4/27	11.9	11.8	11.5	11.6
ANIMAS-SAN JUAN BASINS					
<u>Animas River</u>					
Cascade	4/28	9.1	5.9	5.6	7.7
Mineral Creek	4/28	4.7	3.4	3.9	4.5
Molas Lake	4/28	9.4	6.6	3.6	6.6
<u>Dolores River</u>					
Dolores	4/29	19.6	5.9	9.0	12.2
Lizzard Head	4/29	11.8	5.4	4.7	8.2
Rico	4/29	13.8	10.4	10.5	7.3
GUNNISON BASIN					
<u>Gunnison River</u>					
King	4/29	3.3	2.3	2.3	2.3
COLORADO BASIN (MAINSTEM)					
<u>Blue River</u>					
Blue River	4/27	4.2	3.6	3.3	3.0
<u>Colorado River</u>					
Berthoud Pass	4/27	3.9	3.4	3.3	2.9
Gore	4/27	4.9	4.5	4.2	4.1
Grand Mesa	4/28	12.5	12.5	11.6	9.9
Ranch Creek	4/28	8.7	6.5	6.5	6.2
Vail	4/29	12.3	9.0	9.0	10.5
<u>Roaring Fork River</u>					
Placita	4/29	9.3	8.2	8.1	7.6
YAMPA BASIN					
<u>Yampa River</u>					
Hahn's Peak	4/29	19.0	12.8	7.8	15.0





# LIST of COOPERATORS

The following organizations cooperate in snow surveys for the Colorado, Platte, Arkansas and Rio Grande watersheds. Many other organizations and individuals furnish valuable information for the snow survey reports. Their cooperation is gratefully acknowledged.

## STATE

Colorado State Engineer  
New Mexico State Engineer  
Nebraska State Engineer  
Colorado Experiment Station  
Rocky Mountain Forest and Range Experiment Station

## FEDERAL

Department of Agriculture

Forest Service  
Soil Conservation Service

Department of Interior

Bureau of Reclamation  
Geological Survey  
National Park Service  
Indian Service

Department of Commerce

Weather Bureau

War Department

Army Engineer Corps

Atomic Energy Commission

## INVESTOR OWNED UTILITIES

Colorado Public Service Company  
Public Service Company of New Mexico

## MUNICIPALITIES

City of Denver              City of Greeley  
City of Boulder             City of Fort Collins

## WATER USERS ORGANIZATIONS

Arkansas Valley Ditch Association  
Colorado River Water Conservation District

## IRRIGATION PROJECTS

Farmers Reservoir and Irrigation Company  
San Luis Valley Irrigation District  
Santa Maria Reservoir Company  
Costilla Land Company  
Uncompahgre Valley Water Users' Association  
Twin Lakes Reservoir and Canal Company  
Trinchera Irrigation Co.

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